

COMBINING REDUCED HERBICIDE RATES AND CULTIVATION FOR EFFECTIVE WEED CONTROL  
IN CORN

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**Abstract:** Demonstrations of banded herbicides and cultivation were conducted at one location in New York. Despite extensive on-station research showing that banded herbicides and cultivation can result in yields equivalent to broadcast herbicides, even growers who already cultivate rarely use banding of herbicides to reduce chemical application rates and costs. Since reduced rates of herbicides are now legal in New York, our demonstration was modified this year to include 1/3 rate of herbicide plus cultivation. We believe that one reason that growers have not used banded herbicides is that equipment changes or purchases are necessary, whereas reducing rates of a broadcast spray requires no new equipment or arrangements of current equipment.

**Introduction:** Only 20% of N.Y. field corn growers currently use cultivation to control weeds, either with or without herbicides. Despite years of on-station research demonstrating that banded herbicides and cultivation result in yields equal to broadcast herbicides, most N.Y. corn growers who cultivate still use broadcast, full-rate herbicides (Gift and Mt. Pleasant, 1997). While interest in cultivation is growing, according to both growers and extension agents, growers who cultivate and use herbicides lose money unless they understand the role of banding (Mt. Pleasant et al., 1996). According to growers, the reasons not to cultivate include time constraints (both amount of time during hay cutting and timeliness due to wet soil) and costs (fuel, equipment). However, both of these concerns can be mitigated with use of a banded herbicide, and perhaps even more so with a reduced-rate, broadcast herbicide, which might fit in better with current grower practices. A banded herbicide, or perhaps a low-rate herbicide application, enables growers to cultivate later in the season and still control weeds (timeliness), to cultivate only once or twice and still control weeds (lessening hours in the field), and to cut the herbicide portion of weed-control costs by two-thirds. This year, we performed a demonstration of cultivation and banding in western New York. These demonstration experiments were designed to make the benefits of banding and cultivation clearer to growers.

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